UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

September 9, 1996

Reply To
Attn Of: ECO-088

Ref: 95-109-AFS

Jim Thompson
Petersburg Ranger District
Tongass National Forest
P.O. Box 309
Petersburg, Alaska 99833

Dear Mr. Thompson:

We have reviewed the Draft Environmental Impact Statement (draft EIS) for the proposed **South Lindenberg Timber Sale(s)** in accordance with our responsibilities under the National Environmental Policy Act and §309 of the Clean Air Act. The draft EIS analyzes four action alternatives to harvest approximately 40 million board feet of timber from roughly 1,700 to 1,800 acres on Kupreanof Island, immediately to the west of Petersburg, Alaska. The draft EIS identifies Alternative 5 as the preferred action alternative.

Based on our review, we have rated the draft EIS EO-2 (Environmental Objections - Insufficient Information). This rating and a summary of our comments will be published in the *Federal Register*. A summary of the rating system we used in our evaluation of this EIS is enclosed for your reference.

Our primary concerns, which are related to the potential impacts of the project on water quality and fish habitat, are highlighted below.

1) Based on information presented in the *Anadromous Fish Habitat Assessment* (AFHA) report, we do not believe that the proposed application of Tongass Timber Reform Act (TTRA)-mandated buffers and BMPs (i.e., current practices) would provide adequate protection of fish habitat and water quality. An important finding of AFHA is that current practices do not adequately protect fish habitat and water quality and that buffers are needed for Class II streams not protected under TTRA and Class III streams. Because the presently proposed project would rely exclusively on the use of BMPs to protect these streams, we are concerned that potentially significant degradation of water quality and fish habitat would result with the implementation of this project. To adequately protect the aquatic environment, the project should be revised to include the recommendations presented in AFHA, particularly those related to the establishment of buffers for streams.

2) Analyses presented in the draft EIS indicate that potentially significant changes to the hydrologic characteristics of Unnamed Watershed 5 would result with project implementation. This could result in potentially significant impacts to water quality and fish habitat. We recommend that a watershed analysis be conducted to determine the cumulative effects of past and proposed management activities in this watershed.

3) Based on information presented in the draft EIS, it appears that some of the roads to be constructed as part of the proposed project may require permits from the Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. We recommend that you contact the Corps as soon as possible to determine permitting requirements for this project. Should permits be required, we recommend that they be obtained concurrent with the development of the final EIS to comply with 40 CFR 1500.2(c).

4) We do not believe that the road closure methods proposed in the draft EIS are consistent with applicable State of Alaska regulations and current Forest Service direction. We recommend that the final EIS (and the ROD associated with the final decision) clearly identify the methods to be used to close roads, and provide a demonstration that they are consistent with current applicable regulations and Forest Service direction.

Enclosed please find our detailed comments, which elaborate further on these issues as well as other areas of concern we believe need to be addressed in the final EIS. We are interested in working closely with the Forest Service in the resolution of these issues and I encourage you to contact Bill Ryan at (206) 553-8561 at your earliest convenience to discuss our comments and how they might best be addressed.

Thank you for the opportunity to review this draft EIS.

Sincerely,

Richard B. Parkin

Richard B. Parkin, Manager
Geographic Implementation Unit

Enclosure

cc: Jim Ferguson, ADEC
Kevin Hanley, ADEC
Ralph Thompson, COE-Alaska District
NMFS
ADFG

South Lindenberg Timber Sale(s)
Detailed Comments on the Draft Environmental Impact Statement (draft EIS)

Protection of Fish Habitat and Water Quality

We are extremely concerned with the treatment of impacts to fish habitat and water quality presented in the draft EIS. From a public disclosure standpoint, we find that the document fails to identify important and relevant information and direction that is fundamentally linked to the design of a project that would adequately protect fish habitat and water quality.

Anadromous Fish Habitat Assessment

We were unable to locate any references to the *Anadromous Fish Habitat Assessment* (AFHA) report and the associated implications of its recommendations on fish habitat/water quality protection needs for the Tongass in general, and this project specifically. AFHA was conducted at the direction of Congress to assess current practices and recommend additional anadromous fish habitat protection needs on the Tongass and represents the best available information related to anadromous fish habitat conditions and needs on the Forest. A key finding of AFHA is that current practices are not entirely effective in protecting fish habitat. AFHA indicates that buffers are needed on all Class II streams as well as on Class III streams. Because the draft EIS indicates that current practices (the application of TTRA-defined buffers and BMPs) would be employed to mitigate impacts to rivers and streams within the project area, we believe that fish habitat and water quality would ultimately be degraded with the implementation of this proposed project. We are aware that staff on the Tongass have been directed by the Alaska Regional Forester to implement the recommendations contained in AFHA. To inform the public about the environmental issues surrounding this timber sale, the final EIS must include a discussion of the AFHA report, including its major findings and recommendations, and integrate those recommendations into the design of the proposed project. To adequately protect the aquatic environment, the AFHA recommendations should be integrated into the proposed project and be reflected in the final EIS and Record of Decision (ROD).

Cumulative Watershed Effects

We are concerned with the draft EIS's conclusion that no significant hydrologic effects are expected from the proposed project even though information presented in the EIS indicates potentially significant impacts are likely to the hydrologic processes within Unnamed Watershed 5. Because the proposed project would result in more than 25 percent of the total watershed acreage being logged, increases in storm peak flows are likely to occur. Consequently, potentially significant impacts to water quality and fish habitat are likely to result from increased slope failures and increased runoff from rain-on-snow events. We recommend that a cumulative watershed effects analysis be conducted for Unnamed Watershed 5 to demonstrate that proposed activities would not result in significant impacts to water quality and fish habitat. As presently characterized in the draft EIS, potentially significant impacts to Unnamed Watershed 5 appear to be extremely likely.

Roads

The US Army Corps of Engineers (Corps) has indicated in it's comments on recent Tongass timber sale EISs that the exemption from regulation under Section 404 of the Clean Water Act granted to the construction and maintenance of forest roads is only applicable to roads which would be used solely for normal silvicultural activities, such as harvesting trees. Because the Forest Service is presently proposing to allow the use of off-road motorized vehicles (presumably for recreational and/or other uses) on some of the roads upon completion of timber harvesting activities, construction of such roads would appear to require a Corps authorization by issuance of a permit. We recommend that the Forest Service contact the Corps as soon as possible to determine if the exemption granted under §404(f) of the Clean Water Act is applicable to such roads. If §404 permits would be required, they should be obtained concurrent with the development of the final EIS to satisfy 40 CFR 1500.2(c).

In addition, we are concerned with the road closure methods proposed in the draft EIS. We do not believe that allowing roads to be "closed" by alder growth is consistent with the Alaska Forest Resources and Practices regulations (11 AAC 95.320), which specify that roads are to be closed by outsloping or water barring of road surfaces, leaving ditches in conditions suitable to reduce erosion, and with the removal of all bridges, culverts or fills. Additionally, we do not believe that alder growth "closure" is consistent with Forest Service BMP 14.24 (Soil and Water Conservation Handbook, FSH 2509.22), which specifies that all temporary and short-term roads are to be obliterated upon completion of their use. We recommend that the final EIS and Record of Decision (ROD) commit to using road closure procedures for this proposed project which are consistent with applicable state regulations and Forest Service direction.

Executive Order 12962

We were also unable to understand how the proposed project relates to the direction given in Executive Order 12962 (dated June 7, 1995). This order directs all Federal agencies to "conserve, restore, and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide" and it is our understanding that the Forest Service has committed to take the lead amongst Federal agencies in the implementation of this Executive Order (EO). Because we view many of the AFHA recommendations as actions necessary to conserve, restore, and enhance aquatic systems on the Tongass, we are concerned that the project (as presently proposed) may not comply with EO 12962. An evaluation of the proposed project relative to the direction given in EO 12962 should be included in the final EIS.

Log Transfer Facilities

Each proposed action alternative would utilize the existing Tonka log transfer facility (LTF). Unfortunately, there is no discussion of the current conditions of the marine and terrestrial environments at this site nor any evaluation of potential impacts to it. The final EIS should address the potential site-specific impacts to the environment from the continued operation of the existing LTF. The impacts may be significant and may warrant further evaluation.

NEPA requires full disclosure of potential environmental impacts associated with this (as with any) proposed federal action. The final EIS should provide additional site-specific information related to the current conditions of the existing Tonka LTF. This information should include 1) an evaluation of the biological resources, 2) delineation of the areal extent and outer boundary of bark accumulation, and 3) estimates of the thickness and percent cover of bark debris. The additional information is required to allow our agency and the public to evaluate whether accumulation of bark from the continued operation of the Tonka LTF site may result in a direct and/or cumulative impact to the marine environment. Furthermore, the final EIS should include a description of the existing LTF, including 1) transfer devices (e.g., cranes, low-angle slide, A-frames (single or double with a mechanism for controlling speed), log slides, log bundle conveyors, drive down ramps, etc.), and sorting and storage areas, 2) past estimate of timber volume (MMBF) handled by the existing LTF, and 3) the extent to which the Tonka LTF conforms with the recommendations contained in the Alaska Timber Task Force *Log Transfer Facility Siting, Construction, Operation and Monitoring/Reporting Guidelines*.

Monitoring

We believe that a discussion of effectiveness monitoring results on the Tongass should be included in the final EIS to demonstrate that the BMPs proposed for use in this project adequately protect water quality and fish habitat.

We are encouraged with the commitment to conduct effectiveness monitoring of stream buffer design and stream crossing structures. We offer the following comments as ways of strengthening these efforts and making their results more useful in implementing the Forest Service's adaptive management strategy.

Stream Buffer Design Monitoring

This monitoring effort appears to be more of an implementation monitoring exercise than an effectiveness monitoring effort. The evaluation process seems to be aimed at determining if buffers designed during project layout are adequately translated to on-the-ground buffers. The measurement/evaluation methodology presented in the draft EIS does not appear to be adequate in providing information related to the effectiveness of buffer design in protecting stream habitat and water quality. It would only reveal that buffers have been adequately (or inadequately) implemented on-the-ground and have remained wind firm. We recommend that the effort be augmented with some type of in-stream measurements that would translate to fish habitat/water quality protection. These measurements could include parameters contained in the Alaska Water Quality Standards (e.g., temperature, sediment, turbidity) or the fish habitat objectives identified in Appendix C.1 of the AFHA report (large woody debris, pool area, width-to-depth ratio). This type of information would make the necessary link between buffer design and implementation, and the effectiveness of those buffers in protecting fish habitat/water quality. In addition, the monitoring proposal should provide the following information:

1. Number (or percent) of buffers to be evaluated as part of the monitoring effort.

2. Process that would be used to select the buffers to be measured.
3. Frequency that buffers are to be measured (during and after harvesting activities) as part of this exercise. "Periodically" is too vague to be ensure that buffer measurements would be taken in a consistent fashion throughout the project area.
4. Field recording and project reporting mechanisms.

Stream Crossing Structures Monitoring

We do not believe that the currently proposed method of measurement would ensure that meaningful (and useful) information would be collected about whether crossing structures permit the passage of fish. Simply checking for the presence of fish above and below a crossing structure would not necessarily indicate that fish passage is adequate or acceptable. It would simply mean that fish are above and below the passage at the time of observation. Because fish passage would be in both the upstream and downstream directions, the monitoring effort should include observations during times of migration (in both directions) that would document fish actually migrating through the passage. Also, in addition to determining that culverts are properly installed during project implementation, we recommend that post-harvest monitoring of fish passage and culvert conditions be conducted as part of this monitoring effort. The proposal should also include a schedule for the monitoring effort. As presently written, it is not clear when monitoring would be conducted.

Purpose and Need

The draft EIS indicates that the purpose of the proposed project is to "meet the goals and objectives for the Stikine Area of the Tongass National Forest and provide for long-term transportation needs for National Forest visitors and administration." Because of the very general (and vague) description of the purpose for the project, it is difficult to understand why the timber harvest is necessary to meet the stated need. The purpose and need for the proposed project should be clarified in the final EIS in order to place the project in the proper context. As presently written, it appears that any number of different projects could satisfy the purpose and need presented in the draft EIS.

We believe there are issues related to National Environmental Protection Act (NEPA) implementation that arise by explicitly specifying a harvest volume in the purpose and need section of the draft EIS. For example, in stating that the needed volume from the proposed project is approximately 40 million board feet (MMBF), we believe that the range of alternatives has been unnecessarily limited to those that would meet the specified volume. This is made evidently clear with potential harvest volumes varying by no more than 0.9 MMBF over the four action alternatives. Furthermore, in defining a specific volume for this project, we have concerns that critical decisions in the planning process (i.e., determination of the target volume) may have been made without adequate public involvement.

Additionally, we have some concerns that the specification of a target harvest volume in the purpose and need section of the draft EIS may conflict with the Forest Service's stated

direction of using "ecosystem management" in their decision-making process. We believe that the approach being taken in this EIS is to manage the ecosystem "around" the desired timber harvest level instead of identifying the elements needed to maintain a healthy ecosystem and evaluating the project alternatives in relation to those needs. We believe that a management approach which is driven by pre-defined harvest levels will not ensure maintenance of a truly healthy ecosystem within (and outside) the project area.

The draft EIS provides very little information related to the process used in defining the target timber harvest volume, and why it is judged to be "needed." At a minimum, the final EIS should clearly discuss the process used in determining the target harvest volume identified in the draft EIS, and how that process relates to the concerns identified above.

Affected Environment and Environmental Consequences

We are concerned with the lack of quantitative information presented in the draft EIS in general, and specifically related to compliance with Alaska Water Quality Standards. This is the case in the assessment of existing conditions as well as in reporting expected impacts associated with the project alternatives. While surrogate indicators are provided throughout the EIS which give some gross indication of the potential to impact water quality in a relative sense (e.g., number of stream crossings, acres of roads and disturbed soils, etc.), there is little information provided that allows the reader to translate these indicators into what conditions presently are or are likely to be in the affected streams in an absolute sense. Because insufficient information exists to indicate whether streams within the project area currently comply with or exceed WQS, it is difficult to determine whether any of the proposed alternatives would pose unacceptable risks to water quality and fish habitat. This points out the critical need for adequate baseline monitoring information as the foundation for the evaluation of potential project-related impacts.

Water Quality Standards

The achievement of WQS for nonpoint source (NPS) activities is intended to result from the implementation of BMPs. BMPs are to be designed to achieve WQS, which would include applicable water quality criteria (WQS consist of both designated beneficial uses and the criteria necessary to protect the uses, and an antidegradation policy). In other words, the water quality criteria are the measures by which BMPs are judged to achieve water quality protection. In addition, the antidegradation policy explicitly lays out that existing beneficial uses must be fully protected.

Also, BMP application does not equal standard compliance. The key issue however, as previously stated, is that findings of effectiveness monitoring efforts on the Tongass National Forest, and in the Stikine and Chatham Areas specifically, have not been reported or referenced in this EIS. Consequently, assurances of compliance with WQS are not meaningful with this fundamental link missing. BMPs are assumed to protect water quality, but monitoring must be conducted to determine if that is truly the case. If they are not protective, then the BMPs must be

revised. This reinforces the need to conduct effectiveness monitoring studies as a component of the proposed project.

Antidegradation

EPA believes that the federal antidegradation policy could potentially be violated for streams within the project area. An antidegradation analysis, as specified in the Antidegradation Policy [see 40 CFR 131.12 and 18 AAC 70.011], should be included in the final EIS. This policy was developed to achieve the goals of the Clean Water Act, which are to restore and maintain the chemical, physical and biological integrity of the nation's waters.

The Antidegradation Policy describes three tiers of protection. Briefly:

Tier 1:
No activity is allowable which would partially or completely eliminate any existing beneficial use of a water body, whether or not that use is designated in a state's WQSs. If an activity will cause partial or complete elimination of a beneficial use, it must be avoided or adequate mitigation/preventive measures must be taken to ensure that the existing uses and the water quality to protect those uses will be fully maintained.

Tier 2:
Where the quality of the waters exceed "fishable/swimmable" levels ("high quality waters"), that quality shall be maintained and protected unless the following are completed:

1) a finding that such degradation is necessary to accommodate important economic or social development in the area in which the waters are located.
2) full satisfaction of all intergovernmental coordination and public participation provisions, and
3) assurance that the highest statutory and regulatory requirements and BMPs for pollutant controls are achieved.

Please note that this provision is intended to provide relief only in extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for "fishable/swimmable" water. The burden of demonstration on the party proposing such activity is very high. In any case, the activity shall not preclude the maintenance of a "fishable/swimmable" level of water quality protection.

Tier 3:
Where "high quality waters" constitute outstanding national resources, that water shall be maintained and protected. As with the other tiers, the state determines the "tier" of the water body. If necessary, EPA can provide guidance on determining water quality status.

Federal Consistency Provisions of §319 of the Clean Water Act

The final EIS needs to fully integrate §319 of the Clean Water Act. Existing water quality conditions in National Environmental Policy Act documents need to reflect and reference the state's water quality assessment. Direct or indirect nonpoint source water quality effects need to be reduced through design and mitigation measures to ensure that the project is consistent with the state's NPS program. The contact for the Alaska Department of Conservation is:

Jim Ferguson
Forestry Services Team Leader
(907) 465-5365

Environmental Effects Outside the Project Area

The draft EIS fails to identify and evaluate potential consequences of the proposed project "outside" the project area boundaries. We believe that additional discussion of these potential impacts must be included in the EIS to satisfy the implementing regulations for NEPA (40 CFR 1502, section 1502.16). Because the proposed project would provide timber for processing outside of the defined project boundary, the project would generate air and water quality impacts in other areas of Southeast Alaska. Such impacts should be addressed in the final EIS. Some questions/issues that should be addressed in the final EIS include:

> What are the current air and water quality conditions at/near locations where harvested timber would likely be transported to for processing and what impacts to those areas are likely to result from each proposed project alternative?
>
> Are there currently permits in place at facilities in these areas? What types of permits? What is the compliance status of those facilities with their permits?
>
> Do any of the areas that could be affected by the proposed timber sale currently exhibit air quality or water quality problems? If so, how would the proposed action relate to these problems?

The final EIS should include a discussion/evaluation of the project-related impacts "outside" of the project area.

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U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections

The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonaby available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.